

forces to determine competitive levels. Choosing prices incorrectly, as is very likely to be the case, confounds desirable market outcomes and has long-lasting deleterious effects.

In addition, dramatically reinitializing price caps after seven years of clear and unambiguous rules will have disastrous effects on the primary goal of price caps—to use as an alternative to cost-based regulation that provides greater efficiency for cost minimization. ILECs would have significantly smaller incentives to improve efficiency under this new system because regulatory credibility has been greatly reduced. Therefore, for those access services that remain under price caps and are subject to a prescriptive approach, ILECs will have reduced efficiency-improvement incentives. This reduction would undermine the goal of implementing price cap regulation in the first place and, as mentioned below, is not necessary to reform the current access regime and more closely align rates with economic costs.

#### **B. USTA's Proposal Accurately Recognizes Competitive Alternatives and Provides for Sufficient Protection**

We disagree with Professor Kwoka's assertion that pricing flexibility should not be granted because it will "predictably result in reductions designed primarily to deter competition."<sup>31</sup> In essence, Professor Kwoka implies that flexibility should be correlated with some degree of competitive losses. We believe that it is essential to eliminate unneeded regulatory constraints which do not reward efficiency and prevent the least-cost supplier from providing the service when the market is *first* opened to competitors so that entrants and incumbents will make efficient entry and exit decisions, some of which entail large investments and sunk costs. In order for competitors to be given accurate and efficient price signals, they must compete with firms on as a symmetric basis as possible. Otherwise, market signals lead to uneconomic bypass and a wasteful duplication of society's scarce resources. By adopting this approach, entrants are given accurate market signals which lead to entry in those instances

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<sup>31</sup> John E. Kwoka, Jr., *Statement on LEC Price Cap Reform*, p. 19, MCI Comments.

where their economic costs of providing the service are less than or equal to the incumbent's economic cost—net unneeded regulatory constraints.

USTA's transition plan for streamlining regulatory constraints reflects the competitive nature of the market and provides sufficient protection to prevent the exercise of market power. USTA's approach is a market-based approach which we believe to be far superior to any prescriptive reform mechanism. Under USTA's approach, a state-approved interconnection agreement or Statement of Generally Available Terms is sufficient to obtain Phase I relief. In Phase I, services—on a statewide basis—remain under price cap regulation with a simplified basket structure, volume and term discounts, contract tariffs, elimination of Part 69 codification and deregulation of new services. Phase II focuses on a geographic basis and would require a demonstration of actual competition by one or more carriers, including an interconnection agreement and corresponding use of unbundled elements, facilities-based competition or resale. It is appropriate that the Commission analyze and evaluate the number of competitors, the targeted serving area, measurements of minutes of use exchanged, and NXX codes assigned to competitors as indicators that competition is present and operating in the market area. At this stage, services are removed from price cap regulation because market forces are sufficient to constrain price increases.

USTA's pricing flexibility proposals are consistent with sound economics and are conservative because they call for flexibility *after* competition has been authorized. The proposals will not handicap entrants and rivals as predicted by Professor Kwoka. The Courts, the Commission, and economic principles have recognized that permitting a firm to reduce or restructure prices to retain customers or service volumes that it would otherwise lose to competitors would result in *lower* prices for all consumers, provided only that services were always priced above incremental cost. The reason is simple: at any price above incremental cost, every sale covers its own costs and provides some amount of contribution towards fixed and common costs of the firm. Other customers and other services do not bear "excessive and unreasonable prices" from ILEC volume or term discounts or customer-specific pricing; on the contrary, prices for other ILEC services could be reduced if market-based pricing—above

incremental cost—permits ILECs to retain business that it would otherwise lose to a competitor. Indeed, volume and term discounts and customer-specific prices and service configurations are normal and healthy consequences of competition in markets where customers have widely different needs for services. Efficiency requires that competitors *and* ILECs be able to respond to rapidly changing and idiosyncratic demands and preferences.

The argument against price flexibility essentially reduces to the possibility that the ILEC will reduce rates below incremental cost. This objection is, in essence, a predatory pricing argument: the ILEC will reduce rates below incremental costs and through the elimination of its competitors, ultimately raise prices and recoup funds invested in predation. As mentioned in our initial Comments, however, such a strategy is unlikely to succeed, and Courts have been suspicious of predatory pricing claims.<sup>32</sup> Second, interconnection agreements which provide for UNEs, interconnection, transport and termination, etc. prevent the ILECs from recouping lost revenue as a result of predation from remaining access services in the price cap. As mentioned below, we believe that UNEs are a substitute for carrier access services and will constrain ILEC market power. ILEC access demanders are large and sophisticated customers whose transactions costs associated with obtaining substitute access through interconnection and UNEs are likely to be less than the benefits obtained. Third, USTA's restructured price cap contains service category constraints and zone constraints with upward ceilings. ILECs are constrained by the amount they are able to increase access rates for the less price elastic services to make up for reductions in the more price elastic services. Fourth, revenues associated with contracts are not included in the price cap basket; therefore, the ability of ILECs to decrease rates in competitive markets and increase rates for inelastic customer groups is greatly reduced.

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<sup>32</sup> Schmalensee and Taylor.

## **1. HHI Issues**

The use of market share analysis based on the Herfindahl-Hirshman Index (“HHI”) has several problems which limit its ability to be an effective tool for the Commission to use. We disagree with WorldCom and others who argue for the use of the HHI as the basis for granting broader flexibility.<sup>33</sup> The HHI is inherently backward looking and will not provide reliable information to determine the extent of competition likely to occur due to rapidly changing environments. Incorrect conclusions based on this type of information will have market-distorting effects by not accurately taking into account all relevant information. In addition, the regulatory costs required to obtain anything resembling useful information will likely be much greater than any benefits obtained. It is administratively difficult to get information; especially in the current context where relevant statistics should be based on a geographic and product market basis. The administrative burden required to obtain reliable statistics on a service and geographic area basis is simply too great and provides the Commission with little useful information to base decisions.

### **C. Interconnection Agreements and Unbundled Network Elements Significantly Reduce Barriers to Entry**

Professors Baumol, Ordover and Willig and Professor Kwoka are skeptical of the ability of interconnection agreements—containing, *inter alia*, access to UNEs—to provide for an effective substitute to the Part 69 access regime. We disagree. Under the terms of the Interconnection Order, UNEs may be combined to provide a total exchange access service equivalent to conventional access service—provided that the competitor “wins” the end user.<sup>34</sup> This allows a CLEC, for example, to purchase unbundled loops, local switching, signaling, and

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<sup>33</sup> Worldcom Comments, CC Docket No. 96-262, January 29, 1997, p. 86.

<sup>34</sup> We note that to date there have been a total of 470 final agreements, United States Telephone Association Interconnection by State, Competition Report.

transport to provide exchange access.<sup>35</sup> In essence, a competitor need not invest in loops, switches or transport to provide exchange access.

Almost entirely absent from their analysis is a discussion of reductions in sunk costs associated with UNEs which greatly increase a competitor's ability to compete effectively. It is unquestionable that a state-approved interconnection agreement or a Statement of Generally Available Terms reduces the absolute level of sunk cost needed to enter the market. Competitors are able to lease network elements, one at a time, on a month to month basis and obtain access to rights of ways reducing sunk costs and facilitating various entry strategies.

In addition, an interconnection agreement or Statement of Generally Available Terms facilitates competitive entry in a greatly *expanded* area by making it economical for competitors to compete in areas that may have been unprofitable—for reasons such as insufficient density and volume to warrant facilities investment—prior to passage of the Act. Particularly important is the Commission's requirement for unbundling the local switch which allows competitors to: (i) compete for lucrative vertical services without having to invest in switches—and by implication loops—and (ii) compete for access. The Commission concluded that custom calling and CLASS features—as well as customized routing<sup>36</sup>—are “features, functions and capabilities” and fall within the definition of network elements.<sup>37</sup> This, combined with the ability to combine network elements, immediately make *all* ILEC customers—both local exchange *and* exchange access—potential CLEC customers.

In addition, the merits of the arguments regarding the ability to discriminate against rivals in the provision of quality access is greatly reduced as a result of the removal of

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<sup>35</sup>The pricing of unbundled network elements, of course, determines the margin and extent of bypass. The FCC's pricing rules are currently unresolved given the Stay in the 8th circuit. However, a number of states are proceeding to resolve pricing issues under the terms of the Act.

<sup>36</sup> Customized routing permits carriers to designate the particular outgoing trunks that will carry certain classes of traffic originating from the competing provider's customers, allowing a competitor to direct particular classes of calls to particular outgoing trunks. See Interconnection Order ¶418.

<sup>37</sup> Interconnection Order ¶410.

operational barriers. The Interconnection Order concluded that operations support systems and the information they contain are network elements.<sup>38</sup> Competitors will be able to electronically bond with the ILEC's pre-ordering, ordering, provisioning, maintenance and repair and billing systems. In essence, requests for repair and maintenance, ordering etc., will appear *internally* to the ILEC and the ILEC will not know who is requesting the service. This ability provides competitors with nondiscriminatory operations support systems, which in turn minimizes the ability of the ILEC to engage in non-price discrimination.

Professors Baumol, Ordover and Willig also argue that the constraint to win the local customer as a precondition to being able to provide local exchange access using UNEs significantly limit their use as substitutes. As described in the Commission's Order on Reconsideration,<sup>39</sup> this constraint applies to the use of the unbundled switch element. Exchange access, however, is defined from an IXC POP to the end user and consists of additional UNEs where one does not need to win the local customer as a precondition to providing local exchange access. In addition, the constraint that the local customer be "won" when using the unbundled switch element or the loop arises, as the Commission recognized, "as a practical matter."<sup>40</sup> It is impractical to provide exchange access over a customer's dedicated loop and not, at the same time, provide the customer local exchange service. Purchasing an unbundled loop or the unbundled local switch gives the CLEC exclusive use of the dedicated facility—in the case of the unbundled switch the dedicated facility is the port/line card. Thus, it is not a regulatory anomaly that prevents CLECs from providing exchange access in certain circumstances without also providing local exchange service, rather it is a technological issue. Therefore, if a CLEC is targeting and wins an exchange access customer—using the customer's unbundled loop and local switch—the costs associated with obtaining that customer's local

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<sup>38</sup> Interconnection Order ¶516.

<sup>39</sup> *In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996 and Interconnection between Local Exchange Carriers and Commercial Mobile Radio Service Providers*, CC Docket Nos. 96-98, 95-185, Order On Reconsideration, Adopted September 27, 1996, ¶11.

<sup>40</sup> *Ibid.*, ¶12

exchange business is practically zero. Indeed, competition under the Act is expected to blur current distinctions among local, intraLATA, interLATA and carrier access services, as customers demand bundled communications services. Supplying services as customers demand them is not a barrier to entry in these markets.

Denying pricing flexibility when competition is first authorized raises serious economic concerns. In this situation, however, advocates are arguing against pricing flexibility, not only after competition is first authorized, but also after the dominant firm's infrastructure is unbundled and opened to competitors. Coupled with interconnection requirements, transport and termination provisions, number portability, etc., such a position guarantees that market signals will be distorted. The flexibility being asked for by USTA ensures that each provider's efficiencies and relative abilities to supply customer demands determine success in the market—not its ability to profit from regulatory distortions.

#### **D. Terminating Access Should Be Symmetrically Regulated**

Because end users do not bear the costs of termination, access carriers have an incentive to price terminating access above competitive levels. While the calling party has a business relationship with its originating carrier, the calling party has little control over the terminating carrier of the called party. The terminating carrier, in turn, does not have an incentive to maintain a good working relationship with the calling party, and may increase terminating rates to the calling party's long distance provider—which, presumably gets passed on to the calling party. Hence, the same regulation selected for ILEC terminating access must apply to CLEC terminating access, irrespective of the market shares of the ILECs and CLECs in any market. The CLEC with one customer controls bottleneck access to that customer and certainly possesses power over the price at which such terminating access can be sold. In the absence of any requirement to unbundle, terminating carriers will continue to have the incentive and ability to price terminating access above competitive levels. For this reason, CLEC terminating access should be regulated consistently with ILEC terminating access, in order to prevent the

exploitation of market power and to ensure that asymmetric regulation is reduced to the greatest extent possible.

In the presence of ILEC UNEs and interconnection, market power arising from these regulatory anomalies is substantially mitigated. IXC carriers that face higher terminating rates than competitive levels may substitute UNEs for terminating transport and thus bring market forces to bear. In addition, terminating access through local interconnection agreements are good substitutes for interstate terminating access services. While regulation may distinguish these services, arbitrage will occur where profitable, and local interconnection prices will exert downward pressure on terminating carrier access prices.

## **V. CONCLUSIONS**

As market forces continue to reform the exchange access market, the Commission should not embark on a course that reverses the incentive-improvement effects of recent Commission policies. Market forces are preferable to regulation in every instance where they can be used, as is the case in this situation. We urge the Commission not to delay the use of market forces in the exchange access market because there is skepticism that they are not sufficiently perfect to constrain access and do not behave in a textbook manner. Market forces need not be perfect in order to make the decision to forebear from regulation. On the contrary, the burden should be placed on those who argue against the use of market forces to reform access. Neither theoretical nor empirical evidence has been presented in this proceeding to indicate that current market forces coupled with UNEs are insufficient to begin the process of reforming access and, as such, market forces should be the first tool used by the Commission.

# A CRITIQUE OF THE MCI WHITE PAPER

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## **I. SUMMARY**

It is ironic that MCI presents itself as the champion of competition while arguing for continuing regulatory restriction of LECs resulting in protection of the long distance market. If the long distance market were as competitive as MCI claims, then it is surprising that MCI is so concerned about the entry of additional competitors. Competition cannot be threatened by increasing competition particularly given the framework that the 1996 Act provides to ensure competitive parity in long distance through separate LEC long distance subsidiary and other accounting and non-accounting safeguards.

This paper provides a discussion of the points raised by MCI as well as a careful evaluation of the arguments.<sup>1</sup> Generally we find that MCI has misrepresented facts where it has decided to comment and omitted material facts from its discussion. Specifically, we find that:

- MCI credits long distance competition for large reductions in average long distance prices which were actually, principally brought about LEC access reductions.
- MCI cites estimates of industry aggregate average revenue per minute as evidence of price reductions, however, price indices show that long distance prices to millions of customers have increased substantially in the last few years.
- MCI claims that currently long distance markets are fiercely competitive, however, the recent history of IXC pricing behavior demonstrates that the current interexchange carriers have settled into a comfy oligopoly which denies small customers of the full benefits of true competition.
- MCI claims that RBOC entry into long distance markets would distort and not enhance competition, however, MCI has failed to recognize the numerous competitive safeguards created under the Telecommunications Act. In addition, recent events show that customers have benefited substantially when LECs have participated in long distance markets.

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<sup>1</sup> We refer to MCI's document, "True Competition In The Long-Distance Market," January 27, 1997 at [HTTP://www.competition.mci.com/abo...icpolicy/nfr/press/012797wpd.shtml](http://www.competition.mci.com/abo...icpolicy/nfr/press/012797wpd.shtml) as the "MCI White Paper".

## **II. ON THE COMPETITIVENESS OF THE LONG DISTANCE INDUSTRY**

In its White Paper, MCI presents a series of statements about the degree of competition in long distance markets. MCI claims that competition has taken the place of monopoly control in the long distance market in the period since divestiture. It claims that competition has brought substantial benefits to consumers in the form of lower prices, greater choices, and higher service quality. Upon closer examination of the statements MCI presents, we find that MCI has substantially misrepresented facts in its recitation and ignored important features of long distance markets in its analysis of those markets. In the sections below, we present a summary of the MCI position and then a critique of that position with a more thorough examination of the particular issue MCI is addressing.

### **A. Analysis of Prices**

MCI begins with an analysis of prices, and they purport to look at long distance prices in several different ways. They claim to examine general price levels, prices of long distance relative to carrier access and average “best” prices. We take each of these subjects in turn.

#### **1. General Price Levels**

*MCI first begins with a discussion of the level of prices in the long distance industry since 1985. They claim that the price of a call has dropped by over 70% and that “thanks to competition” long distance calls are far cheaper today than they were in 1984.*

In its presentation, MCI has mistakenly characterized reductions in average revenue per minute as reductions in average prices. Aggregate average revenue per minute are not measures of price, any more than average revenue per bag of groceries from the local supermarket is a measure of the price of groceries. In the current telecommunications environment, there are many reasons to expect average revenue per minute to overstate true

price declines. We present several examples that clearly demonstrate how declines in ARPM during the last several years almost certainly overstate the actual declines in prices:

- Suppose AT&T customers demand ten minutes of message toll service (MTS) for each minute of wide area toll service (WATS) (and no other services) and that the price of MTS (per minute) is twice that of WATS. If MTS and WATS prices increase slightly but demand for WATS grows at 50 percent per year while MTS demand grows at 10 percent per year, then the ARPM of usage decreases by slightly less than two percent. In other words, ARPM declines despite the fact that both of the component usage prices have increased.<sup>2</sup>
- A similar problem arises in the context of volume discount plans. Suppose the prices in the plan remain fixed, but customers are able to receive lower effective marginal prices when their demand expands (e.g., because they have installed fax machines). In that case, ARPM would decline not because the price of usage declined, but because customer demand increased.
- ARPM will also overstate the effect of a price change if the own-price elasticities for different services are different, even when the percentage price change for each is identical. For example, suppose (1) the price of service A is one dollar per minute, ten minutes are sold, and the A own-price elasticity is - 0.2, and (2) service B has a price of fifty cents per minute, a demand of ten minutes and an own-price elasticity of -5.0. If the price of each of the services decreases by 10 percent, ARPM will decrease by 17 percent. Observe that the anomalous result is not caused by substitution of lower-priced service—their demands are assumed to be independent in this example—but reflects the inadequacies of the index itself.
- ARPM (as measured by the IXCs) goes down when facilities by-pass is initiated by the end-user and will overstate the cost savings enjoyed by the customer. For example, when a large customer builds a private network perhaps bypassing LEC access facilities, AT&T's ARPM from that customer could go down (relative to MTS) but the cost to the customer of any minutes reflect both AT&T charges (ARPM from AT&T's perspective) and its own network costs.

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<sup>2</sup> This is not merely a theoretical possibility. According to AT&T's 1994 *Annual Report*, "Although we raised prices on basic services over the past two years, the shift in the mix of services that customers selected reduced average per-minute revenues in 1994 and 1993" (at 24).

The examples above illustrate two general circumstances producing a tendency for ARPM to exaggerate recent price reductions. First, when different prices are charged to different customer groups or for different services, then differences in underlying rates of growth of sales (whether or not caused by the change in prices) can cause aggregate ARPM to overstate price reductions. Second, ARPM from any one IXC will misstate end user costs when end users assemble services through a variety of vendors.<sup>3</sup>

Aside from the fact that average revenue per minute does not measure prices, MCI has miscalculated average revenue per minute. Figure 1 in the MCI White Paper is based on a study done by Robert Hall in 1993 and revised in 1995, with a 1996 number appended by MCI. The Hall Study, the source for most of the numbers in Figure 1 has been criticized elsewhere.<sup>4</sup>

A major area of criticism of the Hall study revolves around data issues: it is not clear what the numerator, total long distance revenues, in Hall's average revenue per minute is, nor what he has used to estimate the denominator, the total number of minutes in the industry. One does not need to go past the four corners of the MCI White Paper to see that the Hall numbers are inconsistent with other estimates of average revenue per minute. For example, in Figure 1 average revenue per minute in 1992 was estimated by the FCC to be 16.63 cents. This number estimated by the FCC (and the FCC has expressed some concern about the veracity and accuracy of its calculations in this regard as we discuss below) is very different from the 19.1 cents that's displayed in Figure 1 which is the estimate produced by Dr. Hall. In the next three years, the two "average revenue per minute" series do not even trend together consistently. The

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<sup>3</sup> Changes in average access cost per minute (AAPM)—reflecting changes in payments to LECs will likewise exaggerate the reductions in access costs that IXCs or their customers have actually realized, when they bypass LEC facilities. The tendency that we have described for ARPM to overstate price reductions is therefore offset to some extent by the similar tendency for AAPM to overstate reductions in access charges. At most, the errors cancel out one another. What is far more likely is that average revenue per minute net of access overstates the actual reduction in prices or costs borne by customers: ARPM is likely to err by more than AAPM because in every situation where AAPM is biased downward (i.e., when LEC access is bypassed) so is ARPM, and there is a variety of other situations in which only ARPM is biased downward.

<sup>4</sup> See for example, Crandall, Robert W. and Leonard Waverman, "Talk Is Cheap" *Brookings*, Washington D.C., 1995, p.171.

discrepancy between the two figures in 1994 is larger in percentage terms than the discrepancy in 1992.

To summarize MCI claims, based on estimates of average revenue per minute, that prices have declined significantly.

Prices for some customer classes have indeed come down substantially, however, the distribution of benefits has been far from uniform across the customer population. Large business have benefited from the new competitive regime. For one thing, the volume of their requirements has made it economical for either the customer itself or the IXC to bypass the switched access charges of the LECs and for the IXCs to connect directly with them.<sup>5</sup> And, of course, the combination of the size of their business, on the one side, and, on the other, the very wide gap between the incremental costs of the IXCs and their average rates (as the subsequent price reductions themselves clearly attest) have forced IXCs into intense competition in offering special contractual arrangements, incorporating both special prices and new and superior service offerings.<sup>6</sup> As the FCC has observed, large customers now solicit proposals from multiple vendors and negotiate terms directly with the interexchange carriers.<sup>7</sup>

The price reductions have been dramatic: the average cost for a minute of long distance service for a large corporation appears to have fallen by about 80 percent (nominally, and even more in inflation-adjusted dollars) since 1983.<sup>8</sup> Prices in 1983 were at about 35 cents per

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<sup>5</sup> Customers can achieve effective price reductions in this way either by bypassing those facilities entirely or by purchasing special access, at lower rates, whether from the LEC or from a different provider.

<sup>6</sup> AT&T responded by offering such services as SDN (software defined networks) and multi-location WATS (wide area telecommunications services), when regulators permitted it to do so. This latter offering allowed large firms to aggregate their traffic in different locations in qualifying for volume discounts, while the IXC still provided billing services on a location by location basis. Other service innovations include AT&T Tariff 12 options, which bundle at least two categories of service—inbound, outbound and data—and provide discounts.

<sup>7</sup> Report and Order, *In the Matter of Competition in the Interstate Interexchange Marketplace*, CC Docket No. 90-132, FCC, 6 FCC Rcd. 5880, 5887, Adopted: August 1, 1991, Released: September 16, 1991, par. 38.

<sup>8</sup> Felix, Michael T., "Preparing the Market for Enhanced Service Implementation," *Telephony*, v. 230, no. 13, March 25, 1996, p. 40.

minute and are now at about 7 cents per minute for the largest business customers.<sup>9</sup> The more than 28 cent per minute reduction in long distance prices to large commercial users since divestiture is partly explained by an approximately 11 cent reduction in switched carrier access charges over the relevant time period.<sup>10</sup> Another part is explained by the shift of large customers to services, such as MEGACOM, that bypass LEC facilities and their access charges. And an important part is simply the result of direct competition among the IXCs.

Small residential subscribers have not benefited to anything like the same degree from the enhanced competition. In contrast with the estimated 80 percent decline for large business customers, long distance prices for residential consumers (as measured by the CPI) declined by about 29 percent from 1984 through the beginning of 1994. Since AT&T reported an average revenue per minute (ARPM) for its Consumer markets of about 23 cents in 1994,<sup>11</sup> this means its average residential long distance prices fell about 9 cents per minute during the preceding decade—while access charges declined 11 cents per conversation minute.

The apparent 2 cents per minute increase in residential rates net of access charges in the first post-divestiture decade evidently grew in the next two years: since 1994, AT&T has increased the basic rate for residential interstate calling by over 20 percent. Its price hike of January 1994, by an average of 6.3 percent, was targeted at low-volume subscribers as well as ones under AT&T's residential calling plans indexed to the basic rate.<sup>12</sup> It increased rates further by 3.7 percent in December 1994,<sup>13</sup> and 4.3 percent and 5.9 percent, respectively, in

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<sup>9</sup> Rohde, David, "VPN Rates On The Way Down," *Network World*, December 2, 1996, Vol. 13, No. 4g, pp. 1, 14-15; Table 7.12, *Statistics of Communications Common Carriers*, Federal Communications Commission, 1988/1989 Edition, p. 286; Felix, "Preparing the Market..." *Telephony*, p. 40; Crandall, Robert W. and Leonard Waverman, "Talk Is Cheap" *Brookings*, Washington D.C., 1995, p. 125; "GSA Tells Congress FTS 2000 Prices Beat Market Rates," *Telecommunications Reports*, March 8, 1993.

<sup>10</sup> See Table 5.11 in *FCC Monitoring Report*, May 1996, p. 474.

<sup>11</sup> Ex Parte Presentation in Support of AT&T's Motion for Reclassification as a Nondominant Carrier, Attachment I. Letter from C.L. Ward, AT&T, to William F. Caton, FCC, dated February 8, 1995.

<sup>12</sup> "AT&T Proposes \$750 Million Rate Hike, New Calling Plan Aimed At High-Volume Residential Users," *Telecommunication Reports*, January 3, 1994.

<sup>13</sup> Keller, John J., "AT&T and Rivals Boost Rates Further," *The Wall Street Journal*, November 29, 1996, p. A3.

February and December 1996.<sup>14</sup> These increases over the last two years have occurred in the face of a continued drop in carrier access charges, on balance, during the same period.<sup>15</sup>

## **2. Long Distance Prices Relative to Access**

*MCI Claims that long distance rates have declined roughly twice as fast as access charges have declined. The source given for these statements is a recent FCC report.<sup>16</sup>*

Here again MCI has confused long distance rates with average revenue per minute. For the reasons outlined above, the fact that average revenue per minute may have fallen between 1992 and 1995 does not imply that rates to even one set of customers have fallen.

MCI has relied upon a recent FCC report for numbers on average revenue per minute for 1992 through 1995 and access costs per minute over the same time period. MCI however has elected to display average revenue per minute figures for domestic *interstate* calling and compared them to access costs per conversation minute for *interstate and international* calls. Obviously these two series are different and there is no reason to expect them to necessarily move together or to have any kind of causal relationship. MCI could have elected to show average revenue per minute per interstate and international minute to compare with the access charges they used however, the decline in value for that series is about 3/4 what the decline in the series they used was. To summarize, they elected to use an incorrect series apparently to exaggerate the differences between average revenue and access costs per minute.

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<sup>14</sup> "AT&T Follows MCI, Sprint with Long Distance Rate Increases." *Telecommunication Reports*, December 2, 1996.

<sup>15</sup> Access charges per conversation minute have declined by 9.34% (from 6.66 cents to 6.04 cents) since July 1993, although there occurred a brief intervening increase from 6.66 cents to 6.89 cents, or about 3.4 percent, in July of 1994. See Table 5.1 in *FCC Monitoring Report*, May 1996, p. 474.

<sup>16</sup> Telecommunications Industry Revenue: TRS Fund Worksheet Data, FCC, December 1996.

The FCC report itself has several problems that the FCC acknowledges. These problems fall into three categories, i) errors in calculations; ii) problems with the underlying data; and iii) conceptual errors in the analysis. With regard to the first, the FCC has incorrectly calculated access costs per conversation minute because of an error in the formula that it used component calculations. As a result the numbers in MCI's Figure 2 are subject to calculation error. The FCC report has other computational errors in the underlying tables however they do not affect the numbers MCI reported.

Second, the FCC acknowledges discrepancies between the data collected for the TRS fund worksheets and other data purported to measure the same things. For example, the big four IXCs reported revenues of \$67.5 billion in the TRS worksheets while \$62.4 billion was reported in FCC *Long Distance Market Shares*. The FCC claims that most of the difference appears to be due to different treatments of international settlements.<sup>17</sup> Certainly a \$5 billion discrepancy in a given year for international calling would affect the results of the calculations of average revenue per minute.

Third, the analysis underlying TRS fund worksheet has at least two major conceptual errors. First, the FCC has overestimated conversation minutes because it has relied on access minutes to proxy for those values. However we understand that NECA, the source of the underlying data, reports two terminating access minutes (both ends of the call are terminating) for certain types of calls -- including inbound WATS. 800 calling represents a large fraction of total calls so that there will be a substantial overestimate of conversation minutes using this methodology. The second conceptual problem is that the FCC has not appropriately handled special access services.<sup>18</sup>

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<sup>17</sup> Telecommunication Industry Review TRS Fund Worksheet Data, FCC, December 1996, p. 7.

<sup>18</sup> In a recent telephone conversation Jim Lande, the author of the FCC TRS report, acknowledged these two shortcomings of the analysis but was not sure what the effect of correcting these errors would be on the average revenue per minute figures calculated as part of the analysis. The problem with terminating access measures overstates revenues while the problem with conversation minutes overstates total conversation minutes.

To summarize, the table presented by MCI does not accurately measure trends in price and access costs over the period that it has elected to analyze.

During the post-divestiture period, the FCC dramatically lowered charges for network access paid by the long distance carriers to the local telephone companies and required AT&T to pass the savings on to ratepayers. According to the FCC, the average interstate switched access charge per conversation minute fell about 65 percent from May 1984 to May 1996.<sup>19</sup> This would translate to a decline of \$0.11 per conversation minute. To make this reduction possible, the FCC imposed monthly subscriber line charges directly on telephone customers, shifted costs to the intrastate jurisdiction through changes in separations rules and adopted price cap formulas that mandated reductions over time in the remaining local exchange carrier interstate carrier access revenue requirements.<sup>20</sup>

What shows up most strikingly in the record of AT&T's long distance prices since 1984 is that these FCC-mandated decreases in the prices it pays to the local exchange carriers for access more than fully "explain" the decrease in its long distance charges. According to a recent estimate, AT&T's annual carrier access bill dropped by about \$10.3 billion between 1984 and 1994 (holding volumes constant) while over the same period of time the bills that its customers received fell by about \$8.5 billion (once again holding volumes constant). Thus, despite loss of market share, massive advertising and marketing efforts and the active competition for large business customers to which it was subjected in the interstate long distance markets, AT&T was still able to raise its prices relative to access charges and collect an additional \$1.8 billion per year.<sup>21</sup>

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<sup>19</sup> Staff of the Federal-State Joint Board, *Monitoring Report*, CC Docket No. 87-339, May 1994, at 386, updated to 1996.

<sup>20</sup> The FCC's reason for making these changes was its recognition that pricing subsidies are economically unsustainable in a competitive environment. In particular, it recognized that excessively high carrier access charges would lead to bypass of the local network. See, e.g., Gerald W. Brock, "Bypass of the Local Exchange: A Quantitative Assessment." Federal Communications Commission, OPP Working Paper #12, September 1984.

<sup>21</sup> Taylor, William E. and J. Douglas Zona, "An Analysis of the State of Competition in Long-Distance Telecommunications Market." *Journal of Regulatory Economics*, forthcoming March, 1997. We emphasize that  
(continued...)

MCI claims that the “cumulative savings for consumers since 1991 totals more than \$51 billion.” This assertion relies upon its incorrect claim that margins have declined. In fact, as described above margins have widened to the extent that consumers were charged about \$19.4 billion (adjusting for inflation) more than they would have been charged if long distance price reductions had kept pace with access cost reductions during the period of 1985 through 1995.<sup>22</sup>

Since 1994 the contrast between the two is more striking: while access charges have continued to fall, prices have risen. Access charges per conversation minute have decreased by about 10 percent since January 1994.<sup>23</sup> Simultaneously, AT&T has increased the basic rate for residential interstate by over 20 percent.<sup>24</sup> Obviously since 1994 basic rates and access charges have not changed to the same degree—they have not even changed in the same direction.

### **3. Average Best Prices**

*MCI claims that prices have declined in every service category. The source given for these statements is a recent FCC report.<sup>25</sup>*

MCI claims that customers in all volume categories have had long distance rates fall in the past five years. They cite a recent study apparently prepared by AT&T as evidence. Here again MCI has misrepresented the facts. MCI has presented evidence based on hypothetical

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(...continued)

the evidence we present here is of the change in process alone, for given volumes of usage. As we will explain presently, this is not the same as average revenue per minute.

<sup>22</sup> *Ibid.*

<sup>23</sup> See Table 5.11 in *FCC Monitoring Report*, May 1996, p. 474.

<sup>24</sup> In the price hike of January 1994, basic residential rates rose by an average of 6.3 percent. (“AT&T Proposes \$750 Million Rate Hike, New Calling Plan Aimed At High-Volume Residential Users,” *Telecommunications Reports*, January 3, 1994) Rates further increased in December 1994 by 3.7 percent. (“AT&T and Rivals Boost Rates Further,” *Wall Street Journal*, November 29, 1996, p. A3) Following a year of no rate increase in 1995 as it had promised (“AT&T Proposes Consumer Price Changes, Discounts,” *Telecommunications Reports*, February 20, 1995), AT&T put into effect a basic rate increase of 4.3 percent and 5.9 percent in February and December 1996, respectively. (“AT&T Follows MCI, Sprint with Long Distance Rate Increases,” *Telecommunications Reports*, December 2, 1996)

<sup>25</sup> Telecommunications Industry Revenue: TRS Fund Worksheet Data, FCC, December 1996.

calling patterns to conclude that “monthly prices declined by roughly ... \$0.60 for residential customers with 50 minutes of use.”<sup>26</sup>

Rather than examine billing data for actual customers, they review the tariffs for several services including MTS, Reach-Out America, AnyHour Savings, True USA, True Savings and True Rewards and determined the best price for each of sixty hypothetical patterns of calling.<sup>27</sup> The source table shows that prices for the 50 minute category increased in nominal terms between 1991 and 1995. Of course, this also implies that prices net of access are increasing for this customer class during this period of time—indicating that AT&T is earning a greater margin from this class of customers.

And what about customers with between 0 and 50 minutes of long distance—roughly monthly long distance bills of less than \$10? Apparently MCI and AT&T need not consider them. However, these customers account for about 42 percent of all residential customers.<sup>28</sup> Shall we forget that bills to these customers have increased substantially over the period and by nearly twenty percent since 1994?

## **B. Structure of the Market**

MCI has focused on the following three structural characteristics of the long distance market in describing the competitiveness of the markets: 1) changes in market shares over time; 2) expansion in market; and 3) evidence on persistent low returns in long distance relative to local.

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<sup>26</sup> MCI White Paper.

<sup>27</sup> Motion of AT&T Corp to be Reclassified as a Non-Dominant Carrier, FCC 95-427, Appendix B, October 23, 1995.

<sup>28</sup> PNR Study 1995.

## 1. Market Shares

*MCI claims that reductions in AT&T market share over time indicate increased competition in long distance.*

The threat of antitrust intervention could motivate firms to avoid any obvious indications of possessing market power. For example, by maintaining its market share below a particular level—or, as is most relevant in the case of interstate long-distance service, by reducing its market share by a sufficient amount—a firm may effectively enter an antitrust “safe haven.” Thus, the behavior of AT&T may be constrained to produce market share outcomes in a safe haven.

A series of past court decisions supply information on the likely position of the market share “fence.” For example, in *United States v. Aluminum Co. Of America*,<sup>29</sup> the Second Circuit Court indicated that a 90 percent market share “is enough to constitute a monopoly; it is doubtful whether sixty or sixty-four percent would be enough; and certainly thirty-three percent is not.” The other cases which have tested the middle ground between the extremes cited in *Alcoa* have generally established a threshold of approximately 60 percent. For example, 50 percent was considered below the threshold in *American Telephone & Telegraph Co. v. Delta Communications Corp.*<sup>30</sup> while 71 percent was considered above the threshold in *Heattransfer Corp. v. Volkswagenwerk, A.G.*<sup>31</sup> An observed reduction of market share down to and stabilization at the 60 percent threshold would be consistent with a strategy of seeking to avoid antitrust action.

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<sup>29</sup> 148 F.2d 416, 424 (2d Cir. 1945).

<sup>30</sup> 590 F. 2d 100 (5th Cir. 1979).

<sup>31</sup> 434 U.S. 1087 (1978).

## **2. Expansion of the Long Distance Market**

*MCI claims that competition among long distance companies has fueled demand for long distance services and increased the overall size of the market.*

The expansion demand for long distance service is completely explained by demand stimulation arising from reduced prices associated with FCC ordered reductions in carrier access rates. In a recent paper, Taylor and Taylor show that toll demand grew no more than would be expected based on changes in price fueled by access reform, population and consumer income. They claim that the “substantial price reductions and outward shifting of the toll demand curve that would be expected to arise from vigorous toll competition have yet to materialize.”<sup>32</sup>

## **3. Operating Cash Flows and Investments**

*MCI uses operating cash flow margins<sup>33</sup> for different industries as a basis for comparing profitability. MCI also reports under-investing by the LECs in recent years.*

This is misleading since it does not control for the very different asset bases that each industry supports with these cash flows. MCI also incorrectly claims<sup>34</sup> that such operating cash flow margins are “the highest in American industry”<sup>35</sup> High operating cash flow margins are

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<sup>32</sup> Taylor, William E. and Lester D. Tayler, “Post divestiture long-distance competition in the United States,” American Economic Review May 1993, pp 165-190.

<sup>33</sup> The ratio of earnings before interest expense, taxes and depreciation to operating revenues.

<sup>34</sup> Using the FactSet Datasystems Inc. database of public companies we identified 44 US non-financial services companies with market capitalizations above 1 billion dollars (as of 2/12/97) whose most recent SEC filings indicated a ratio of EBITDA to operating revenue (defined in this case as net sales) greater than 45 percent. For example Maxim Integrated Products Inc. with a market capitalization of 3.3 billion dollars had an operating cash margin (as defined above) of 47.89 percent. Their latest 10-K filing describes the nature of the analog integrated circuit market in which they do business as “intensely competitive”.

<sup>35</sup> MCI White Paper.

normal in industries whose business depends upon financing a large base of capital infrastructure and have relatively low operating costs.

The distinguishing feature of local exchange companies is the huge infrastructure base that they manage. LEC earnings must cover not only the relatively low operational costs of these assets but also the competitive rate of return on these assets due to the private investors who financed the network itself. A comparison of return on assets provides a more representative picture of the relative profitability of the LECs operations. Using the same data relied upon by MCI,<sup>36</sup> the RBOCs earn a return on assets<sup>37</sup> of between 21 and 22 percent a year from 1993 to 1995. By comparison the corresponding values for AT&T are 30 percent in 1993 and 29 percent in 1994.<sup>38</sup>

MCI also claims that LECs have “not invested in their networks in the same way that competitive long-distance providers have.”<sup>39</sup> This is incorrect. The investment performance of LECs has been at least as good as that of long distance providers. Adjusting for the relative levels of operating revenue of the two sectors, LECs have actually invested more than twice as much as the long distance providers between 1984 and 1995.<sup>40</sup> In addition, in a period of rapid technological change, with decreasing costs over time, it is economically reasonable for LECs to invest less (in dollar terms) if only because the cost of the same capacity this year is cheaper than the price paid last year.

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<sup>36</sup> FCC, Statistics of Communications Common Carriers.

<sup>37</sup> Defined as the ratio of net operating revenues before depreciation to total assets.

<sup>38</sup> The FCC, Statistics of Communications Common Carriers does not include data for AT&T after 1994.

<sup>39</sup> MCI White Paper.

<sup>40</sup> Aggregate capital expenditures as a proportion of operating revenue between 1984 and 1995 for the S&P Telecommunication (Long Distance) index was 9 percent while for the S&P Telephone index it was 22 percent. Source: Standard & Poor's Analysts' Handbook, 1996 Edition.

### **C. Oligopoly Pricing versus Competitive Pricing**

*MCI has failed to comment on the pricing dynamics in the industry – we consider them here.*

One likely explanation for the fact that small customers having fared so much less well under competition than large business customers is that the concentrated oligopoly of long-distance carriers serving them has found it far easier to resist the temptation to engage in price competition for their patronage than of that of the large business users. We observe repeatedly in AT&T's pricing behavior the kind of price leadership which denies small volume customers the full benefits of competition in long distance. When alternative regulation allowed AT&T to increase its basic rate schedule, AT&T raised rates apparently without being substantially constrained by competition from MCI and Sprint. For example,

- In the five months before December 1993, "AT&T filed [three] large consumer services rate increases and its two major 'competitors' .. matched them."<sup>41</sup>
- Similarly AT&T instituted three basic price hikes in the first nine months of 1994, and, once again "[e]ach time, MCI and Sprint followed."<sup>42</sup>
- In December 1994, AT&T raised its rates yet again. "MCI . . . and Sprint . . . subsequently proposed similar long-distance price increases of their own."<sup>43</sup>
- Shortly after it granted AT&T non-dominant carrier status, on February 16, 1996, AT&T announced new tariffs for basic residential toll service that will raise the "average customer's monthly bill by about 40 cents."<sup>44</sup> On February 20 and 21 Sprint and MCI followed.<sup>45</sup>

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<sup>41</sup> *Telecommunications Reports*, MCI, Sprint Match AT&T's Consumer Rate Increase Again, Vol. 59, No. 49, December 6, 1993, p. 12.

<sup>42</sup> *USA Today*, Cover Story: Discount War Can Be Confusing, Kim James, September 223, 1994, p. 1B.

<sup>43</sup> *Telecommunications Reports*, AT&T Seeks Further Rate Hikes, Vol. 61, No. 1, January 9, 1995, p. 15.

<sup>44</sup> *Telecommunications Reports*, February 26, 1996, p. 27.

<sup>45</sup> "MCI, Sprint Follow AT&T's Lead, Raise Rates," *Telecommunications Reports*, March 4, 1996, p. 36.

Even as it proceeded to grant AT&T non-dominant status, the Federal Communications Commission (FCC) explicitly expressed dissatisfaction with the pattern of price leadership into which these companies have fallen and its consequences for basic residential rates:

*" 81. ....since 1991, basic schedule rates for domestic residential service have risen approximately sixteen percent (in nominal terms), with much of the increase occurring since January 1, 1994. Moreover, each time AT&T has increased its basic rate, MCI and Sprint have quickly thereafter matched the increase. In addition, studies in the record, including one submitted on behalf of AT&T, suggest that, if price cap regulation is removed for Basket 1 services, basic residential rates will rise even further. n216 [n216 See, e.g., AT&T April 24, 1995 Ex Parte Filing, Attachment G, Affidavit of B. Douglas Bernheim and Robert D. Willig at 139.]*

*82. ....each time that AT&T raised its basic rates, MCI and Sprint quickly matched the increase... this is not evidence of AT&T's individual market power, but perhaps of tacit price coordination.*

*83. We find that the evidence in the record is conflicting and inconclusive as to the issue of tacit price coordination among AT&T, MCI, and Sprint with respect to basic schedule rates or residential rates in general. For example, as noted, certain evidence shows that the lock-step increases may be due to the fact that price caps have kept basic schedule rates below cost, and that any price leadership by AT&T is a function of the current asymmetric regulatory scheme. n220 [n220 AT&T April 24, 1995 Ex Parte Filing, Attachment G, Affidavit of B. Douglas Bernheim and Robert D. Willig at 137-140; see also CSE June 9, 1995 Comments at 5.] To the extent, however, that tacit price coordination may be occurring, the Commission would view this as a matter of serious concern. We believe, however, that this problem, to the extent it may exist, is a problem generic to the interexchange industry and not specific to AT&T. We thus believe these concerns are better addressed by removing regulatory requirements that may facilitate such conduct, such as the longer advance notice period currently applicable only to AT&T, and by addressing the potential issues raised by these concerns in the context of the proceeding we intend to initiate to examine the interstate, domestic, interexchange market as a whole.<sup>46</sup>*

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<sup>46</sup> Order, *In the Matter of Motion of AT&T to be Reclassified as a Non-Dominant Carrier*, Federal Communications Commission. FCC 95-427, Adopted: October 12, 1995; Released: October 23, 1995; par. 81-83; emphasis added, some footnote references omitted.